



CREDIT AND APPEALS POLICY FOR STORMWATER USER FEE

INTRODUCTION

The city of Murfreesboro (City) stormwater user fee is a mechanism for recovering the costs of operating and maintaining the City's stormwater management system, and funding the necessary capital improvements, repairs, replacements, other improvements, and extensions of the City's stormwater management system. The City intends to encourage sound technical design practices which reduce the impact of development on the City's stormwater system through a simple and effective stormwater credit system for non-single family residential property owners. The credit system incorporates an efficient and equitable appeal and stormwater fee adjustment if the City has calculated an incorrect value of impervious area on a non-single family residential property and a credit process for owners of non-single family residential properties who are charged a stormwater user fee.

The basis and emphasis for the credit system is the implementation of stormwater management controls (stormwater management facilities, best management practices (BMP), BMP treatment train) that are designed, operated, and maintained to treat stormwater runoff and/or to mitigate the effects of increased stormwater runoff peak rate, volume, and velocity due to impacts of impervious area as a result of development and redevelopment. The stormwater management control and credit philosophy is based on the approach that the stormwater management controls:

- reduce pollutants in stormwater runoff;
- regulate stormwater peak flow and volume from a non-single family residential property development or redevelopment to minimize downstream stormwater conveyance system erosion; and,
- regulate stormwater peak flow and volume from a non-single family residential property development or redevelopment to minimize flood risk to upstream, adjacent, and downstream properties.

Credits to Stormwater User Fee

Credits to stormwater user fees are available to owners of non-single family residential properties who implement onsite stormwater management controls that provide peak runoff and/or volume control, stormwater quality best management practices, and proper operation and maintenance of the onsite stormwater management facilities. Establishing credits to the stormwater user fee in the context of a stormwater utility achieves greater flexibility in protecting water quality and aquatic habitat in urban watersheds at a lower overall cost to the City. Credits allow property owners to choose the most cost effective development option for their property; pay appropriate stormwater user fee to fund City stormwater management services; or implement onsite stormwater management facilities and pay a reduced stormwater fee. Credits to the stormwater user fee are also available for schools and school systems that implement approved environmental education activities.

Adjustments to Stormwater User Fee

The City will grant an adjustment when non-single family residential property owners identify incorrect total impervious areas contained in the City's database. Single family residential property owners are not eligible for an adjustment to their stormwater user fee since there is only one rate for single family residential property owners.

DEFINITIONS

Definitions of words used in the credit manual are found in Appendix A. Words used in the singular shall include the plural, and the plural, the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined herein shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

NON-SINGLE FAMILY RESIDENTIAL PROPERTY ADJUSTMENT

Requests for adjustment to the stormwater user fee which is based on the equivalent number of single-family (residential) units (SFU) determination of impervious area for non-single family residential properties shall be submitted through the Murfreesboro Water and Sewer Department (MWSD). The MWSD has the authority to administer procedures and standards, and review criteria for adjustment of the equivalent SFUs for a non-single family residential property. All requests for equivalent SFU adjustments shall be judged only on the basis of amount of impervious area on the property.

The following procedure shall apply to all equivalent SFU adjustment requests for non-single family residential properties.

1. Non-single family residential property owners who believe the amount of impervious area used to determine the stormwater user fee for their property is incorrect may submit a written adjustment request to the MWSD.
2. The first step in the non-single family residential property review process will be a review of the City's determination of the impervious area. If resolution is not achieved, the City may request the owner to provide supplemental information to the MWSD. Failure to provide the requested supplemental information may result in the denial of the adjustment request.
3. The MWSD shall respond in writing within six months, from time of receipt by the City of the request, to all stormwater fee adjustment requests.
4. All adjustments to the stormwater user fee shall be retroactive to the date of receipt by the City of the fully completed adjustment request.
5. Denials of requested adjustments may be appealed to the MWSD (see appeals section).

CREDITS TO STORMWATER USER FEE

Credits applicable to the stormwater user fee are only available for non-single family residential property owners. Non-single family residential property owners can apply for a combination of credits. The credit for flood control volume reduction (stormwater quantity) will be based on a case by case basis; credit for stormwater quality is 15 percent; and, credit for streambank protection volume control is 25 percent. Flood control volume, streambank protection volume, and stormwater quality control requirements could be accomplished with one BMP or through a series of BMPs, i.e., BMP treatment train. In summary, five types of stormwater user fee credits are available:

- Flood Control Volume Credits (case by case basis), Q_f
- Streambank Protection Volume Credits, SP_v
- Stormwater Quality Credits, WQ_v
- Education Credits
- NPDES Stormwater Permitted Facilities Credits

STORMWATER VOLUMES CALCULATED PER STORMWATER PLANNING & LOW IMPACT DESIGN GUIDE

All credits associated with stormwater volumes (WQ_v , SP_v , Q_f) shall be calculated per Section 1.2 Planning and Design Approach for Stormwater User Fee Credit as provided in the City of Murfreesboro's Stormwater Planning and Low Impact Design Guide. The Stormwater Site Design Practices in Section 1.3 of the referenced guide should be recognized as stormwater generation reduction techniques to be utilized in the planning and design approach to minimize stormwater runoff.

For the City of Murfreesboro the following rain events shall be used as the basis for calculating the respective stormwater runoff volumes:

- WQ_v = 1.2 inch rain event in a 24-hr period on entire site (impervious & pervious areas).
- SP_v = 3.1 inch rain event in a 24-hr period on entire site (impervious & pervious areas.)

- Q_{10} = 5.2 inch rain event in a 24-hr period on entire site (impervious & pervious areas).
- Q_{25} = 6.1 inch rain event in a 24-hr period on entire site (impervious & pervious areas).
- Q_{50} = 6.8 inch rain event in a 24-hr period on entire site (impervious & pervious areas).
- Q_{100} = 7.5 inch rain event in a 24-hr period on entire site (impervious & pervious areas).

FLOOD CONTROL VOLUME CREDITS, Q_f

Flood control volume credits are available, on a case by case basis, for non-single family residential properties whose peak stormwater discharge is controlled by existing or proposed onsite stormwater management facilities that reduce post-development peak flows to peak flows that would occur from the property, in an undeveloped state, for all recurrence intervals from 1- through 100-years. The stormwater management facilities must also control the volume of stormwater runoff for post-development conditions as discussed in the subsequent paragraphs. Existing stormwater management facilities constructed in an inappropriate location or not operated and maintained correctly can aggravate downstream conditions and will not be eligible for a credit. In order for the property owner to qualify for the stormwater flood control volume credit, the stormwater management facility must be designed, constructed, operated, inspected, maintained to City standards, and approved by the MWSD. Pre-existing facilities, which demonstrate to MWSD that their onsite existing stormwater management facilities meet with acceptable criteria discussed in the following paragraphs, will qualify for the flood control volume credit.

Only in the past few years has a lack of stormwater volume control been identified as an important contributor to downstream flooding, water quality degradation, and erosion of stormwater conveyance systems. Stormwater management facilities that limit or control the increased volume of stormwater runoff from development can effectively reduce downstream stormwater impacts resulting from the development. Stormwater runoff volume can be reduced by infiltration and/or by reuse. The problem with using infiltration for volume control (reduction) is assuring the long-term performance of infiltration practices used to achieve the volume control.

A flood control volume guideline is essential to mitigate the impacts of increased volume of stormwater runoff due to development. To accomplish such mitigation the volume reduction method must protect stream channel morphology, maintain groundwater recharge, prevent downstream increases in flooding impacts (elevation and duration), and replicate the natural hydrology on site before any development to the maximum extent practicable. The most effective method of evaluating and maintaining pre-development downstream conditions under post-development conditions is to require the volume from the controlled post-development hydrograph, over the period of time critical to peak flow elevations in downstream reaches, to be no greater than the volume from the pre-development (natural conditions) hydrograph over the same critical time period. This critical time period varies from basin to basin and requires comprehensive basin-wide hydrologic and hydraulic analyses to determine the appropriate critical time period and reaches downstream of the proposed development.

An appropriate flood control volume credit will be determined by the Director of MWSD for non-single family residential properties who can demonstrate to the MWSD that their stormwater management facility regulates the volume from the controlled post-development hydrograph, over the period of time critical to peak flow elevations in sensitive downstream reaches, such that the controlled volume is no greater than the volume from the pre-development (natural conditions) hydrograph over the same critical time period in the sensitive downstream reaches. As stated previously, in order to receive the flood control volume credit peak flow requirements for post-development flows must also be met. Credits for volume control for non-single family residential properties will be evaluated on a case-by-case basis by the MWSD.

STREAMBANK PROTECTION VOLUME CREDITS, SP_v

The volume of stormwater that a stormwater conveyance system can handle when the water elevation is at the top of the channel banks is referred to as bankfull flow. Any increase to the volume of water as the result of development results in increased

frequency and duration of bankfull flow in the stream channels downstream of the development. This increase in frequency and duration of bankfull flow is the primary cause of accelerated erosion and widening of stream channels. A streambank protection volume credit of 25 percent is available for non-single family residential properties that incorporate stormwater management facilities that provide downstream protection from erosion due to the increased volume of stormwater caused by development or redevelopment of a property.

STORMWATER QUALITY CREDITS, WQ_v

Stormwater quality credits are available for non-single family residential properties that have stormwater runoff discharging to onsite stormwater management facilities that significantly reduce pollutants conveyed by the stormwater runoff. These stormwater management facilities (best management practices (BMPs)) include natural areas such as filter strips, natural preservation areas, and wetlands, etc. that provide water quality benefits and groundwater recharge. Credits are also available for other onsite structural stormwater management facilities such as oil/grit separators, retention and detention ponds, or other methods approved by the MWSD. The credit for stormwater management facilities that meet the stormwater quality criteria is 15 percent. To qualify for the credit the stormwater management facility (BMP treatment train) must be designed, constructed, operated, inspected, maintained to City standards, and approved by the MWSD.

(The goal for the stormwater quality credit is removal of 80% of the total suspended solids from the first flush of stormwater runoff (rainfall event with 1.2 inches of depth over the site) that flows through the stormwater management facility (BMP treatment train)).

It is anticipated that if the treatment of the WQ_v becomes a requirement per ordinance, the credit afforded to the user fee will not be negated or canceled. The credit would only be removed in the event that appropriate maintenance of the BMP's are not up to the defined specifications.

Approved stormwater quality credits applicable to the stormwater user fee can be applied to a non-single family residential property in addition to the streambank protection volume (SP_v) as well as an approved stormwater flood control volume. The stormwater quality credit will only be granted for the portion of impervious area that flows to the stormwater management facility (BMP treatment train).

VARIOUS DEGREES OF TREATMENT ON A SINGLE SITE

The City of Murfreesboro recognizes that all sites may not be conducive to treating or controlling stormwater generated on its entire area to the same level. Therefore, the City of Murfreesboro shall allow pro-rated credit based on the level of treatment or control of stormwater runoff achievable to various areas across the site. For example, a 15 Ac. site with 10 Ac. of imperviousness (i.e., assessed \$408 per month on the stormwater user fee) is capable of the following:

1. The site's BMP's are capable of treating the **WQ_v** generated by 6 Ac. of the site's imperviousness to the required **80% TSS removal**.
2. The site's BMP's are capable of controlling the release of the **SP_v** over a 24-hr period generated by 2 Ac. of the site's imperviousness
3. 2 Ac. of imperviousness can not be treated to achieve any level of credit.

The City of Murfreesboro would pro-rate the site accordingly:

\$408 per month minus $[(6/10)*(\$408.00 * 0.15) + (2/10)*(\$408* (0.15 + 0.25))] =$
\$408 per month minus **\$69.36 (17% credit) = \$338.64 per month fee.**

Note that the following will **not** be considerations for a pro-rated credit:

- Achieving a level of treatment on the Water Quality Volume (**WQ_v**) below 80% TSS removal. For example, treating the **WQ_v** to a level of 70% TSS removal will not qualify for a 13% credit opportunity.

- Controlling a volume for release over a 24-hour period less than the Streambank Protection Volume (**SP_v**). For example, a 2.4 inch rain event released over a 24-hour period will not be considered as an additional 19% credit opportunity.

CREDIT BASED ON PUBLISHED PERFORMANCE DATA IN STORMWATER CONTROLS MANUAL

The City of Murfreesboro Stormwater Controls Manual shall contain the recognized Best Management Practices (BMP's) that provide the published level of treatment for **Total Suspended Solids** (TSS), **Nutrients** (Total Phosphorous & Total Nitrogen), **Metals** (Cadmium, Copper, Lead and Zinc), and **Pathogens** (Coliform, Streptococci and E. Coli) removal. Any BMP calculations submitted in support of an application for a stormwater fee credit shall conform to the planning and design criteria, design schematics, as well as the design procedure steps & forms in said manual.

Applied credit shall be based on the published performance criteria in the Stormwater Controls Manual. Before any credit will be approved for any proprietary controls, the Murfreesboro Water & Sewer Department must give adequate technical support provided to substantiate any purported treatment efficiencies. MWSD's evaluation shall be used in calculating the credit; product literature from a proprietary control shall not be determinative.

NO OFF-SITE DRAINAGE CREDITS

No off-site drainage credit (treatment or runoff control) will be considered. Any facilities located on site that treat off-site drainage, will be viewed as exclusively serving the individual site's stormwater runoff for the purposes of deriving a stormwater user fee credit.

No claims for a user fee credit will be considered by individuals claiming treatment or runoff control measures located on a tract of record under different ownership.

If an individual owner has more than one tract of land subject to the stormwater user fee, and they are contiguous with one another, and one utilizes a stormwater BMP located on the other, the City of Murfreesboro will consider the credit afforded to the whole. In the event that there is ever a change in ownership whereby the tracts come under different owners, each tract of land will be then be viewed individually and no longer be given credit consideration as a whole with regards to any BMP's lending treatment or control of the other's stormwater runoff.

STORMWATER EDUCATION CREDITS

Stormwater education credits applicable to the stormwater user fee may be available to all public, private, and school systems, which have appropriate accreditation, and agree to teach the Project WET curriculum or an environmental science curriculum that is approved by the MWSD. The credit for stormwater education with an approved curriculum is 15 percent.

To qualify for the credit, the Director of Schools, or person in an equivalent position, must certify annually to the MWSD, prior to July 1 of each year, the extent to which the curriculum was taught in the school year that just ended. The certification must be in writing; include how many students attended the school the previous school year in each grade; and what proportion of those students in each grade the curriculum was presented to.

NPDES STORMWATER PERMITTED FACILITIES CREDITS

Industrial and other non-single family residential properties with a Tennessee Department of Environment and Conservation NPDES Permit for Stormwater Discharges Associated with Industrial Activity on file may be eligible for a NPDES stormwater permitted facilities credit of 10 percent applicable to the stormwater user fee. To qualify for this credit the non-single family residential property owner of the permitted facility must provide a copy

of their NPDES Industrial Stormwater Discharge Permit and required reporting information to the MWSD. The facility stormwater permit must require ongoing visual monitoring as part of the permit conditions in order to receive the credit. Owners of non-single family residential properties with a stormwater permit must provide copies of the most current Visual Inspection Report to the MWSD by July 1 of each year.

STORMWATER MANGAGEMENT FACILITY OPERATION AND MAINTENANCE

Non-single family residential properties that receive credit applicable to the stormwater user fee for flood control volume and water quality control stormwater management facilities (BMP treatment train) must keep the facilities properly maintained. Non-single family residential property owners shall maintain the facilities to standards established by the City; shall document all operation and maintenance activities; and shall provide the MWSD, upon request, all records associated with operation and maintenance of stormwater BMP's utilized for receiving a stormwater fee credit. Certifications may be required in instances where stormwater BMP's must be operated and maintained with specialized equipment or trained operators.

Any credit allowed for non-single family residential properties has the condition that the stormwater management facilities must maintain continuous compliance with standards established in the Stormwater Controls Manual. The City may revoke a credit at any time for non-compliance.

The revocation will be in effect from the estimated time period that it is determined that the stormwater BMP or BMP treatment trains was not functioning, but shall not exceed six (6) months.

ADMINISTRATION OF CREDITS

Credits are available only to non-single family residential properties. Application for credit shall be submitted on the form made available by the City, which may be downloaded at http://www.murfreesborotn.gov/government/water_sewer/stormwater.htm and must contain the appropriate design forms for each Best Management Practice (BMP) as provided in the Stormwater Controls Manual. Forms may also be picked up at the Administration Building at Customer Service or Engineering Annex Building for the Murfreesboro Water & Sewer Department.

Applications shall be submitted to the following address:

Stormwater Coordinator
Engineering Office
Murfreesboro Water & Sewer Dept.
P.O. Box 1477
Murfreesboro, TN 37133-1477

or via facsimile at (615) 848-3206

Credits for the City of Murfreesboro's stormwater user fee shall be applied only after approval by Murfreesboro Water & Sewer Department's Engineering Office.

All calculations shall be stamped by a licensed Professional Engineer in the State of Tennessee. Incomplete applications will not be reviewed. Staff will promptly notify the applicant if a credit application is considered incomplete.

A pending application shall not constitute a valid reason for non-payment of the currently assessed fee.

APPEALS

Any person who disagrees with the calculation of the stormwater user fee, or who seeks a stormwater user fee adjustment based upon stormwater management practices, may appeal such fee determination to the within thirty (30) days from the date of the last bill containing stormwater user fees charges. Any appeal shall be filed in writing and shall state the grounds for the appeal.

Non-single family residential property owners who disagree with the adjustment proposed by the City, based on determination of the impervious area of a property, may appeal such determination to the Director of the MWSD. Non-single family residential property owners who disagree with a credit determination by the City may also appeal to the Director of the MWSD. All disagreements and accompanying rationale shall be submitted in writing.

The Director of the MWSD or designee will conduct a review of the appeal request and provide a written response within ten (10) working days. All decisions by the Director will be in writing and sent to the billing address of the non-single family residential property owner.

A decision by the Director of the MWSD may be further appealed to the Murfreesboro Water & Sewer Board, provided a written appeal is filed by noon no less than ten (10) business days prior to the next scheduled Board meeting. The written request shall state the specific reasons the decision of the Director is alleged to be in error.

The Water and Sewer Board will make their decision at the proper Board meeting. If the appellant is not present at that meeting, a copy of the Board's decision will be mailed to them.

If an appeal is made on the presumption by the Murfreesboro Water & Sewer Department that the owner and a customer of record for water and/or sanitary sewer service have agreed that the customer of record shall be obligated to pay the stormwater user fee, then the customer of record shall supply the following in order to re-direct the stormwater user fee to the property owner:

- Executed documentation of renter's agreement or lease.
- Current information, including name, phone number and mailing address of property owner(s).

Appendix A

Definitions

City of Murfreesboro Credit Policy

Best Management Practices (BMP): This may refer collectively or specifically to a structural or non-structural practice intended to address water quantity or quality as best available.

BMP Treatment Train: Two (2) or more BMP's used in series. When considered comprehensively, a treatment train consists of all the design concepts and nonstructural and structural controls that work to attain water quality and quantity goals.

Credit: An ongoing reduction in a property's stormwater user fee that is available for certain qualifying activities that reduce the impact of increased stormwater runoff resulting from development, or provide an ongoing City benefit related to stormwater management.

Detention Facility: A stormwater management facility which provides temporary storage of stormwater runoff in ponds, parking lots, depressed areas, rooftops, buried underground vaults or tanks, etc., for future release, and which is used to delay and attenuate peak flow and volume.

Flood Control Volume: The intent of flood control volume control is to provide for public safety; minimize downstream flood impacts on level of service of stream crossings and stormwater conveyance systems; flood elevations; and maintain published and existing 100-year floodplain and floodway boundary limits.

Stormwater Quality Volume: The first flush concept is based on the theory that a disproportionate amount of pollutant “removal” from storm water runoff occurs early in each rainfall event. The variable typically used to identify the first flush is a specific rainfall depth.

Impervious Surface: A surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventionally surfaced streets, roofs, sidewalks, patios, driveways, parking lots, patios and any other oiled, graveled, graded, compacted, or any other surface which impedes the natural infiltration of surface water.

Non-Single Family Property: Developed property other than single-family residential property. Such property shall include, but not be limited to, commercial properties, industrial properties, parking lots, hospitals, schools, recreational and cultural facilities, hotels, offices, and churches.

Retention Facility: A stormwater management facility that provides storage of stormwater runoff and is designed to eliminate subsequent surface discharges from the property. These facilities are sometimes effective in reducing downstream flooding because they do not allow discharge of stormwater runoff to downstream locations except in extreme flood events where the storage volume of the facility is exceeded. Retention facilities can also be effective in reducing surface water stormwater pollution since the pollutants contained in stormwater are not released downstream.

Single Family Residential Property: A developed property which serves the primary purpose of providing a permanent dwelling unit to a single family. A single family detached dwelling containing an accessory apartment or a second dwelling unit ("duplex") is included in this definition.

Single Family Unit (SFU): The median of the total square footage of the impervious surface areas (e.g. building footprints, paved driveways, parking lots, patios, non-public sidewalks) of developed single family residential lots within the City.

Fee or Stormwater user fee: The charge established via resolution under authority of City ordinance and levied on owners or users of parcels or pieces of real property to fund the costs of stormwater management and of operating, maintaining, and improving the stormwater system in the City. The stormwater user fee is in addition to any other fee that the City has the right to charge under any other rule or regulation of the City.

Stormwater: means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration, and drainage.

Streambank Protection Volume: Streambank protection volume is the volume of stormwater that a stormwater conveyance system can handle when the water elevation is at the top of the channel banks. It is also referred to as bankfull flow. Any increase to the volume of water from a development results in increased frequency and duration of bankfull flow downstream of the development. This increase in frequency and duration of bankfull flow is the primary cause of accelerated erosion and widening of stream channels.